

What is claimed is:

1 1. A stereoscopic microscope, comprising:

2 a light source section;

3 an illumination optical system having an optical axis and including a projection optical
4 system that forms a single image within the projection optical system and which irradiates a light
5 flux from the light source section onto an observation object via the projection optical system;

6 an observation optical system that includes an objective lens, left and right zooming
7 optical systems for changing the magnification of the observation optical system, and left and
8 right eyepiece optical systems;

9 wherein

10 a center position of said light source section is de-centered from the optical axis of the
11 illumination optical system.

1 2. A stereoscopic microscope, comprising:

2 a light source section;

3 an observation optical system that includes an objective lens, left and right zooming
4 optical systems for changing the magnification of the observation optical system, and left and
5 right eyepiece optical systems;

6 an illumination optical system that includes a reflecting member for leading the light flux
7 from the light source section to an object, the reflecting member being inserted into and removed
8 from a space on the object side of the objective optical system in conjunction with a zooming
9 operation of the left and right zooming optical systems.

1 3. The stereoscopic microscope according to claim 2, wherein the reflecting member has two
2 rounded notches for abutting peripheral portions of the light paths of the two observation light
3 fluxes so as not to eclipse the light fluxes in these light paths.

1 4. The stereoscopic microscope according to claim 3, wherein the two rounded notches each
2 encompass 120 degrees or more of curvature and at least the outer edges of the two rounded
3 notches abut peripheral portions of the light fluxes.

1 5. The stereoscopic microscope according to claim 1, wherein the illumination optical system
2 includes a variable magnification optical system for changing the range of the illumination field
3 in conjunction with a change in magnification of the observation optical system.

1 6. The stereoscopic microscope according to claim 5, wherein
2 the illumination optical system has a reflecting member for leading the light flux from
3 the light source section to the object and the reflecting member is positioned in the vicinity of an
4 image of the light source section; and
5 the reflecting member is de-centered from the optical axis of the illumination optical
6 system in a direction that is opposite to the direction that the center of the light source section is
7 de-centered from the illumination optical system.

1 7. The stereoscopic microscope according to claim 1, wherein the de-centering amount of the
2 center of the light source section relative to the illumination optical system is changeable.

1 8. The stereoscopic microscope according to claim 1, wherein:

2 an optical member with a non-circular output end is arranged near an image formation
3 surface of the illumination optical system,
4 the light source section includes a light guide, and
5 the shape of the output end of the light guide is substantially similar to the non-circular
6 shape of the output end of the optical member.

1 9. The stereoscopic microscope according to claim 3, wherein a reflection prevention member is
2 affixed to the area of the reflecting member having the two rounded notches.

1 10. The stereoscopic microscope according to claim 9, wherein the reflection prevention
2 member is a light shielding cloth.

1 11. The stereoscopic microscope according to claim 1, wherein the illumination optical system
2 has a reflecting member that leads the light flux from the light source section to an object,
3 the reflecting member being inserted into and removed from a space on the object side of the
4 objective lens in conjunction with a zooming operation of the observation optical system.

1 12. The stereoscopic microscope according to claim 11, wherein the reflecting member has two
2 rounded notches for abutting peripheral portions of the light paths of the two observation light
3 fluxes so as not to eclipse the light fluxes in these light paths.

1 13. The stereoscopic microscope according to claim 12, wherein the two rounded notches each
2 encompass 120 degrees or more of curvature.

1 14. The stereoscopic microscope according to claim 11, wherein the reflecting member is moved
2 toward the object and toward the optical axis of the observation optical system when the
3 observation magnification is changed from low magnification to high magnification.

1 15. The stereoscopic microscope according to claim 13, wherein the observation magnification
2 is within a range of 7 to 25.

1 16. A stereoscopic microscope according to claim 2, wherein the reflecting member is moved
2 toward the object and toward the optical axis of the observation optical system when the
3 observation magnification is changed from low magnification to high magnification.

1 17. The stereoscopic microscope according to claim 4, wherein the observation magnification is
2 within a range of 7 to 25.

1 18. The stereoscopic microscope according to claim 3, wherein the two rounded notches each
2 encompass 120 degrees of curvature and continually abut peripheral portions of the light fluxes
3 over 120 degrees of curvature at the maximum magnification of the observation optical system.